Annual Report

1957 - 58

LOS ANGELES STATE *and* COUNTY ARBORETUM

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LOS ANGELES STATE and COUNTY ARBORETUM

301 No. Baldwin Avenue, Arcadia, California

Cable: LASCA, Arcadia, Calif.

Telephone: Hillcrest 6-5247

WILLIAM S. STEWART
DIRECTOR

GEORGE H. SPALDING
SUPERINTENDENT

December 23, 1958

Board of Supervisors
County of Los Angeles
501 Hall of Records
Los Angeles 12, Calif.

Gentlemen:

The activities of this Department are summarized in the accompanying report for the fiscal year 1957-58. The functioning of the Arboretum is approaching the goal set forth in 1948 and the objectives stated at that time are now being realized. These objectives are:

1. A horticultural center for Southern California, providing facilities for the promotion of horticulture and floriculture, fostering more extensive and intelligent use of ornamental plants and trees to enhance Southern California's gardens, parks and parkways.

2. A center for the introduction, testing and improvement of plants adaptable to Southern California.

3. A gardening school for training gardeners, garden superintendents, propagators and other skilled personnel required by commercial and private nurseries and gardens; with special events and a portion of the curriculum of interest to amateurs.

4. A center of research and scientific study, working in collaboration with educational institutions and with Federal, State and County departments of agriculture.

5. An information center maintaining a complete catalogue of all plants cultivated in Southern California, where specimens can be readily identified, and practical advice given on planting, propagation and cultivation.

6. A library and herbarium.

7. A publication center for bulletins, books and pamphlets.

8. A preserve of early California architecture and authentic historical gardens.

9. A bird sanctuary.

The investment in the Arboretum, in addition to its immediate returns in research contributions and the educational program, will pay dividends for generations to come. In terms of tree growth a decade is a small time unit. Just as the trees planted between 1840 - 1880 in the Historical area of the Arboretum grounds are even now still used and enjoyed so will the trees now being planted be appreciated in 1980 and 2000. With vanishing rural area in the County and a predicted population increase to nearly ten million by 1980 there will be increasing demands on the Arboretum for its horticultural services. Even at present there is no comparable metropolitan area in the world with such a scarcity of conservatories, public gardens and plant demonstrations as in Los Angeles County. This situation is becoming worse, not better, as we loose our green belts of orange groves and agricultural areas and replace them with housing tracts, shopping centers, and asphalt. This is particularly tragic as it is occurring in an area climatically so ideal that it should lead the world in civic plantings, beautification, and appreciation of plants.

That the Arboretum and Descanso Gardens are recognized as an outpost standing against this tide is evidenced by the fact that they are featured by the Los Angeles Chamber of Commerce and the All-Year Club among the attractions of Southern California. The steadily increasing attendance and use of the Arboretum attests to its importance for the residents and communities of Los Angeles County.

Respectfully submitted,

/William S. Stewart

William S. Stewart
Director

WSS/jd

LOS ANGELES COUNTY

DEPARTMENT OF ARBORETA AND BOTANIC GARDENS

BOARD OF SUPERVISORS

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A Ribbon Cutting

NEWS RELEASE:

SUPERVISOR CHACE TO CUT RIBBON AT ARBORETUM HOME DEMONSTRATION GARDENS

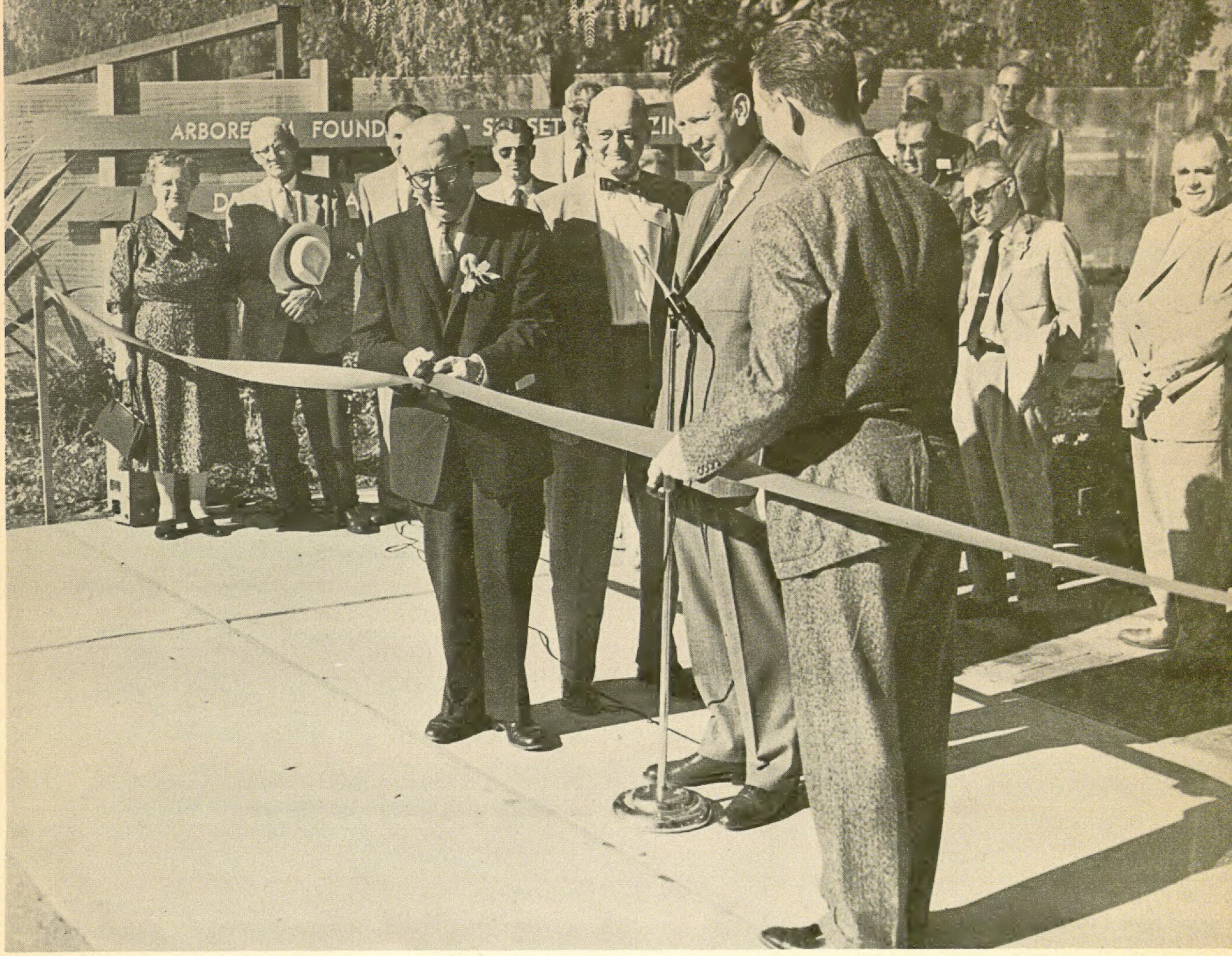
"Formal opening of the four new Demonstration Home Gardens at the Los Angeles State and County Arboretum in Arcadia will be denoted tonight at 5:00 PM when Chairman Burton W. Chace of the Los Angeles County Board of Supervisors will cut the ribbon at the Gardens' entrance."

"The Demonstration Home Gardens are four in number....the words HOME and DEMONSTRATION are keys to how and why the gardens were designed and built ....first, they were planned for the homes of real people .... second, they were designed to demonstrate how to use hundreds of new and old building materials as well as new plant introductions and old plants in new settings ...."

"One should realize that he is seeing a demonstration of many ideas rather than a single approach to garden layout and design ....furnishings and plants will be changed by the season, structures may be altered, remodeled, rebuilt --- to try out new ideas and new materials ...."

"The Gardens are co-sponsored by the California Arboretum Foundation Inc., and Sunset Magazine. The design, planting and construction of these gardens was the responsibility of landscape architects Bettler Baldwin and Owen Peters, and the staffs of the Arboretum, California Arboretum Foundation, Inc., and Sunset Magazine."

"The gardens will be open to the public May 24. Throughout the summer, the gardens will be open Friday, Saturday and Sunday from 9:00 AM to 9:30 PM. Other days of the week, the hours will be from 9:00 AM until dark."



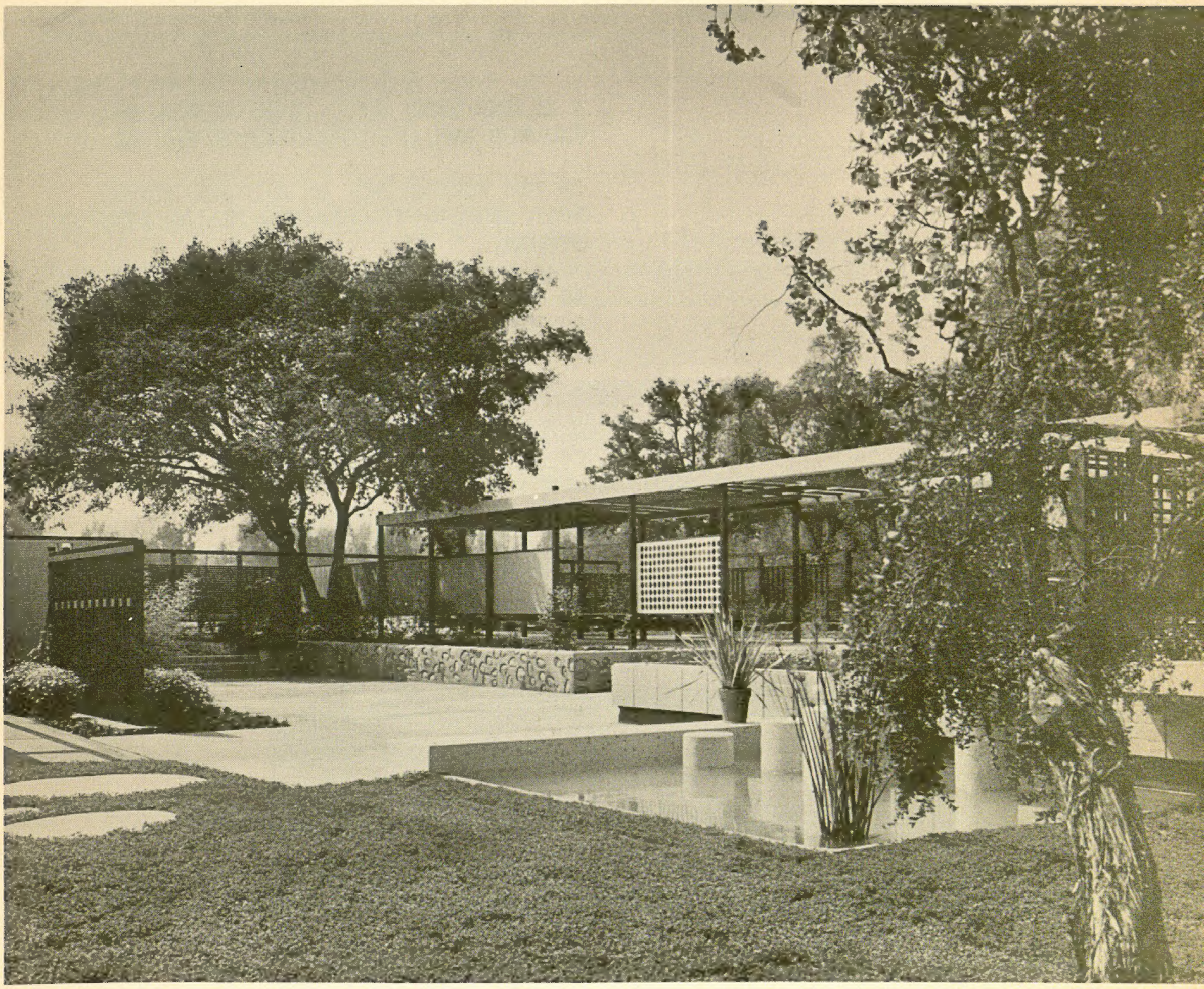
Supervisor Burton W. Chace cuts ribbon with golden pruning shears to officially open the four Demonstration Home Gardens. From left to right: Mr. Chace, Mr. Robert Casamajor, California Arboretum Foundation, Inc., President elect, Mr. Lane, Sunset Magazine and Dr. William S. Stewart, Arboretum Director.

Patio Shade

LOOKING WEST AND TO THE RIGHT FROM THE FIRE PIT, ONE SEES A COVERED WALK-WAY. A DEMONSTRATION OF WOOD, PLASTIC, BAMBOO, REED AND ALUMINUM ROOFING MATERIALS.

PATIO SIDING MATERIALS ARE DISPLAYED BETWEEN THE SUPPORTING POSTS.

THE RETAINING WALL IMMEDIATELY BELOW WAS CONSTRUCTED BY POURING CONCRETE AROUND LARGE, SMOOTH FACED STONES.



Entertainer's Garden

A RAISED DECK PATIO, CONSTRUCTED OF REDWOOD AND APPROPRIATELY FURNISHED.

IN THE FOREGROUND, IS A SMALL MIRROR POOL CROSSED BY CONCRETE PILIAR STEPPING STONES.

AT RIGHT, FLAMES DANCE ON THE WATER FROM SUBMERGED GAS BURNERS.

CIRCULAR STEPPING STONES COLORED WITH PASTEL LITHOCHROME CEMENT, LEAD TO THE FIRE PIT OF THE ENTERTAINER'S GARDEN.

IN THE BACKGROUND, CAN BE SEEN A MORE FORMAL, COVERED PATIO FOR ENTERTAINING.

THE FIRE PIT IN THE ENTERTAINER'S GARDEN.

THE ROCKS ARE OF VOLCANIC ORIGIN AND COMMERCIALLY ARE KNOWN AS "FEATHERROCK". FLOOR OF PIT IS OF PEA GRAVEL. CIRCLES OF CEDAR LOGS SERVE AS RUSTIC SEATS.

BACKGROUND: A DISPLAY OF FENCING IDEAS FOR THE PATIO.

Easy Maintenance

THE EASY MAINTENANCE PATIO GARDEN.

CONCRETE BLOCK STEPS, BRICKED AREA, COLORED SLABS OF TROWELLED CEMENT, RAISED PLANT BEDS OF SUCCULENTS, REDWOOD BENCHES-MAKE THIS A PLEASING AND COLORFUL GARDEN.

THE FAMILY OF THIS GARDEN SPENDS ITS FREE TIME AWAY FROM HOME AND THE USUAL GARDEN WORRIES.

Family Garden

THE TWO CHILDREN SHOULD BE AT HOME IN THIS AREA, FOR IT'S THE PLAY AREA OF THE FAMILY GARDEN. BEHIND THEM IS A "JUNGLE GYM" OF PIPE, WOODEN SUPPORTS AND CIRCULAR WOODEN PLATFORMS.

BEING THE FAMILY GARDEN, SUCH VEGETABLES AS BEETS, CARROTS, CABBAGES, PEPPERS ARE FOUND IN THE RAISED PLANTING AREAS IN THE BACKGROUND.

FENCE PANELLING SAMPLES OF MANY COLORS, CONSTRUCTION, MATERIALS AND DESIGN BORDER THIS GARDEN.

STEEL POLES FOR TETHER BALL, LAWN TENNIS AND BADMINTON ARE AVAILABLE.

IN THE FOREGROUND ARE SAMPLES OF PAVING FOR PATIO AND WALKS.

Plant Collector

FROM THE OPEN GARDENING AREA OF THE PLANT COLLECTOR'S GARDEN, ONE LOOKS TOWARD A NEW IDEA IN GREENHOUSE - POTTING SHED - TOOL STORAGE BUILDING. SOLD AS A "KIT" TYPE UNIT, THIS STRUCTURE IS INTENDED FOR CONSTRUCTION BY THE HOME OWNER. A SHEET PLASTIC ROOF, REPLACES CONVENTIONAL GLASS.

AT THE EXTREME END OF THE GREENHOUSE, CAN BE SEEN THE ATTACHED LATHHOUSE.

Capitol Improvement

THIS YEAR THE Arboretum Service Unit building was completed.... construction followed our other building designs of cement block, painted light tan and roofing of large grade crushed rock of a gray color.... within this U-shaped building one finds: offices of the Chief Horticulturist, Arboretum Foreman, Park Maintenance Man; storage for spray rig, chipper, lawnmowers and other grounds maintenance equipment; lumber storage and carpenter shop; a small mechanical maintenance shop; small tool storage; agricultural chemical storage; pot cleaning and storage area.... outside the building, but attached to the buildirg, are 6 concrete compost bins, 4 bulk storage bins for fertilizer, sand, gravel and soil mix.... all fuels and oils for the powered equipment is located near the Service Unit.... what previously was a scattered Service Division, is now centralized, efficient and a much appreciated part of the whole Arboretum.

Horticulture

Garden Section

Plant Specimens

Flower Show

Plant Records

Weather

Plants make an Arboretum. The Chief Horticulturist, the Arboretum Gardeners and their helpers cannot be credited sufficiently in this report for the excellence of their sections. This brief review can only high-light their endeavors.

PATRONAGE OF THE BIBLICAL GARDEN atop Tallac Knoll increased this year.... approximately 150 plants mentioned in the Bible are now growing in this Garden .... a few of the more interesting and most mature species are: Zizyphus spinacrista, or the "Crown of Thorns" bush; Cedrus lebani, the true Cedar of Lebanon; Ficus sycamorus, the sycamore mentioned in Luke 19:4; Cyperus papyrus, the Egyptian bulrush used in hiding Moses; Olea europaea, the Biblical olive tree; Pinus halepensis, the Aleppo pine, mentioned in the Bible as firwood; and Narcissus tazetta, called daffodil in the Bible.... seed source for these plants has been Israel and other Biblical related countries of the Mediterranean.

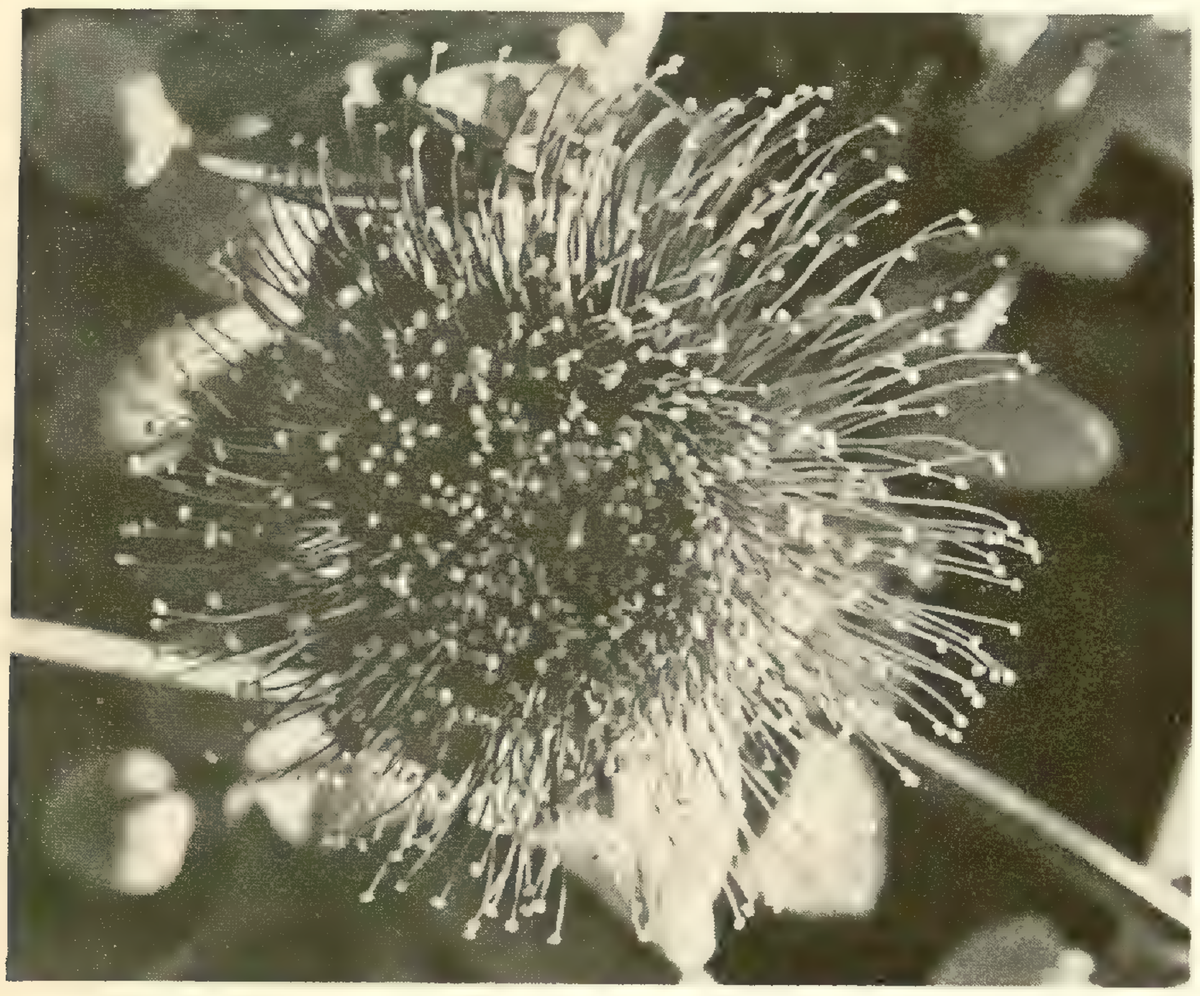
A NOTE ON OTHER SEED AND PLANT EXCHANGES.... SINCE 1949, THE ARBORETUM HAS BUILT UP A RECIPROCAL TRADE ARRANGEMENT WITH APPROXIMATELY 175 BOTANICAL GARDENS THROUGHOUT THE WORLD.

THE ANTELOPE VALLEY TEST STATION OF THE ARBORETUM STARTED A YEAR AGO IN MAY, NOW INCLUDES 500 PLANTS UNDER TEST.... 100 OF THESE PLANTS ARE NEW SPECIES TO THE AREA.

THE PERENNIAL DISPLAY GARDEN truly added color to the fall scene....here was fresh color, not the farewell of a summer past.... 40 species and varieties of Chrysanthemums, totaling 1,100 plants produced colors of white, pink, scarlet, yellow and on into the copper tones.

IN EARLY DECEMBER.... Sturt's Desert Pea (Clianthus speciosa) in the Australian Section displaying large, brilliant red flowers against gray foliage. .... Eucalyptus rhodantha of silver gray branch and leaf, in full bloom of bright red flowers, 3 inches in diameter.... 125 species of Acacias beginning to flower.

Most striking in the South American Section was Cassia splendida, bearing clusters of large, deep yellow flowers.... Thea sinensis, commercial source of Pekow tea, could be seen bearing cream yellow camellia-like flowers.... the neighboring city of Pasadena's gift, an Arabian coffee tree set a great quantity of fruit.... as an attraction at the Gatehouse, the public expressed interest and verbal curiosity about this plant whose product is closely associated with breakfast, the world over.



THE FLOWER (RED FILAMENTS AND YELLOW POLLEN SACS - NO PETALS) OF EUCALYPTUS RHODANTHA.

SPRING CAME FIRST to the South African Section with bold, gay colors.... the "daisies" caught the eye: Euryops, Dimorphotheca, Gazania, Felicia and Ursinia. South African bulbs, ground covers, succulents, shrubs and trees each in turn added more color to delight the plant fancier....

AS THE SEASON lengthened and the days became warmer, the visitor could wander further among blooms.... 30 varieties of Azaleas were to be seen in bloom on the north slope of Tallac Knoll.... Camellias of the

CASSIA SPLENDIDA MAKES A SHRUB-TREE IN THE SOUTH AMERICAN SECTION. THE FLOWERS ARE YELLOW-GOLD.

reticulata and japonica species also grace this hillside.... Hibiscus huegeli, the Blue Hibiscus of Australia was another color attraction.... flowering plums, Prunus blirieana, in the Herb Garden added a light, delicate pink cloud of flowers.... rock work on both the north and south borders of the Herb Garden were completed.... the south rockwall fronts the coming Fragrance Garden for the sightless....

CASSIA NAIROBENSIS FROM SOUTH AFRICA. RICH YELLOW FLOWERS AND DEEP JUNGLE GREEN LEAVES. FLOWERS SMELL LIKE FRESH POPCORN.

A CLASS OF CHILDREN LEARN THAT, 'THAT PINE TREE' --- AURACARIA EXCELSA --- IS NOT A PINE!

THE SOUTH FACING SLOPE OF TALLAC KNOLL IS BECOMING OUR DOMESTIC FRUIT AND NUT TREE EXHIBIT AREA. THIS SEEDLING AVOCADO COLLECTION IS BEING PROTECTED FROM HOT SUN BY PALM FRONDS.

IN APRIL, as the visitor drives along the street which fronts the Arboretum he is treated to the blaze of color from 10 species of ice plant flowers (Mesembryanthemum). Our original seed came from the South Africa National Botanic Garden in Kirstenbosch.... also along Baldwin Avenue, one finds Puya spathecea with its red, four-foot tall spike bearing green flowers....

PLANTED FOUR YEARS AGO, SINOCALMUS OLDHAMI (GIANT BAMBOO) EFFECTIVELY SCREENS THE HIGHWAY FROM VIEW AND HUSHES THE TRAFFIC NOISE WHICH OTHERWISE INVADES THE PEACE OF THE GROUNDS.

THE ORCHID GROWERS ARE SWINGING THEIR INTEREST AND EFFORTS TO SUCH BLOOMS AS PHALANEOPSIS SHILLERIANA. THE AROBRETUM'S ORCHID COLLECTION HAS MORE THAN DOUBLED THIS YEAR, IN QUANTITY AND QUALITY.

EACH CHRISTMAS, THE ARBORETUM'S 'LIVING' GREETING IS THE NIGHTLY LIGHTED AND STAR TOPPED SETTING OF PHOENIX RECLINATA.

AND FINALLY JUNE the day lilies in colors from yellow, orange, pink and red.... our white flowering Jacaranda acutifolia believed to be the only ones of their kind in North America.... our original eleven cuttings came from the Estacion Experimental Agricultura de la Molina, Lima Peru.... the scarlet Wisteria tree (Daubentonia tripetii).... and the collection of Callistemons continued to furnish color and interest for the visitor.

Plant Shed Tales

A HANDSOME NEW GROUND COVER IS READY FOR RELEASE BY THE ARBORETUM.... FROM THE UNION OF SOUTH AFRICA, OSTEOSPERMUM FRUTICOSUM IS MADE AVAILABLE TO NURSERYMEN.... IN ITS HOME LAND IT IS CALLED THE NAUVE OR WHITE DAISY BUSH.... BUT IT IS NOT A BUSH, BUT A GROUND COVER SIX TO EIGHT INCHES HIGH.... THE TWO-INCH FLOWERS OPEN A ROSY LAVENDER, TURNING TO NEARLY PURE WHITE AS THEY AGE.... THE FOLIAGE IS ATTRACTIVE THE YEAR ROUND, PLANTS BLOOM IN THE WINTER....IN SOUTH AFRICA THIS PLANT STANDS 15 deg. F., AND OUR EXPERIENCE INDICATES THAT IT SHOULD BE HARDY HERE.... THE STEMS ROOT INTO THE SOIL EVERY FEW INCHES AND QUICKLY COVER A VERY LARGE AREA.... IT IS ALSO GOOD FOR SMOOTHERING OUT WEEDS.... THE ARBORETUM WILL SUPPLY WELL ROOTED CUTTINGS OF OSTEOSPERMUM FRUTICOSUM IN UNITS OF 25 CUTTINGS AT A COST OF $2.50 PER UNIT. THERE WILL BE A LIMIT OF ONE UNIT PER NURSERY....

THUS THE ARBORETUM IS BEGINNING TO RELEASE TESTED PLANT MATERIALS TO THE TRADE.... THE PUBLIC WILL SOON ENJOY NEW PLANTS FOR THEIR GARDENS....

A PORTION OF THE LATHHOUSE AND NURSERY WHERE GREVILLIA LANIGERA - AN AUSTRALIAN NATIVE - IS USED AS A BORDER PLANTING....

A MORE INTIMATE VIEW OF G. LANIGERA. PLANTED ON A SHOULDER SLOPE, THE PLANTS ARE APPROXIMATELY 3 FEET HIGH. SMALL, RED FLOWERS FROM LATE FALL CONTRAST WELL WITH THE GREEN FOLIAGE.

ABOVE: A YOUNG TREE OF CHORISIA SPECIOSA.... GREEN BARK, SPINY TRUNK, BRIGHT GREEN LEAVES.

THE FLOWER OF C. SPECIOSA MEASURES 4-5 INCHES ACROSS, PALE ORCHID TO ORCHID IN COLOR. AN EXOTIC OF MUCH PROMISE FOR SOUTHERN CALIFORNIA.

DISTRICT 12 OF CALIFORNIA GARDEN CLUBS, INC. SPONSORED TWO STANDARD FLOWER SHOWS -- NOVEMBER 23 AND MAY 10.... "EAST MEETS WEST" WAS THE THEME OF THE FORMER; THE LATTER FEATURED "FROM THE MOUNTAINS TO THE SEA".... THE SHOWS BROUGHT OUT SOME INTERESTING INOVATIONS OF A LADY'S STANDARD HEAD PIECE!

INDIVIDUAL ENTRIES OF FLOWER ARRANGEMENTS EXHIBITED IN THE LECTURE ROOM OF THE ADMINISTRATION BLDG. DURING THE FLOWER SHOW.

AN IDEA CERTAIN OF SUCCESS WITH 'SMALL FRY' GARDENERS WERE THE SEED MOSAICS ENTERED IN THE JUNIOR DIVISION OF THE FLOWER SHOWS.

THE ARBORETUM IN COOPERATION WITH THE LOS ANGELES CHAMBER OF COMMERCE, MAINTAINES THIS LARGE INDOOR PLANTER IN THEIR BUILDING. COLORFUL FLOWERING PLANTS ARE CHANGED WITH THE SEASON.

Plant Identification And Records

To many readers of annual reports, this portion of the Horticultural Section may lack the interest and 'color' of the previous sections.... THIS IS UNFORTUNATE.... FOR.... THROUGH THIS SECTION PASS ALL THE PLANT MATERIAL WHICH ENTERS OR LEAVES THE ARBORETUM.... Let's examine the "inventory" for this year....

ACCESSIONS (INCOMING PLANTS AND SEED)	3,069
PACKAGES OF SEED PLANTED	878
CUTTINGS PLANTED	2,039
PLANTS TO PERMANENT FIELD LOCATIONS	6,039
NURSERY STOCK	
1 GALLON CAN SIZE	6,691
5 GALLON CAN SIZE	146

The figure 3,069 is an increase over last year of 918 accessions.... since the inception of the Arboretum this Section has handled 20,942 accessions.... the accession number might well be called our International Plant Factor.... a Factor against which to measure our growth and recognition in the horticultural world, as well as the type of horticultural service the County of Los Angeles has been receiving for the past 10 years.... THIS SECTION DOES MORE.... Plants are correctly identified by the taxonomist and are so labelled before they go to the field.... AND MORE.... A weather station is maintained.

Our metal identification labels were illustrated and discussed last year .... this year we have been experimenting with laminating a typed paper card between two sheets of very thin plastic (Poly-Vynl-Chloride) and attaching them to a Poly-Vynl-Chloride stanchion.... inserted in the ground next to the plant, 493 such new display labels now inform the lay public of a plant's common name, scientific name, plant family and country of origin.... A FULL REPORT WILL BE MADE AFTER A SECOND YEAR'S EXPERIMENTATION....

<u>THE WEATHER REPORT STATION NO. 1037-E</u>

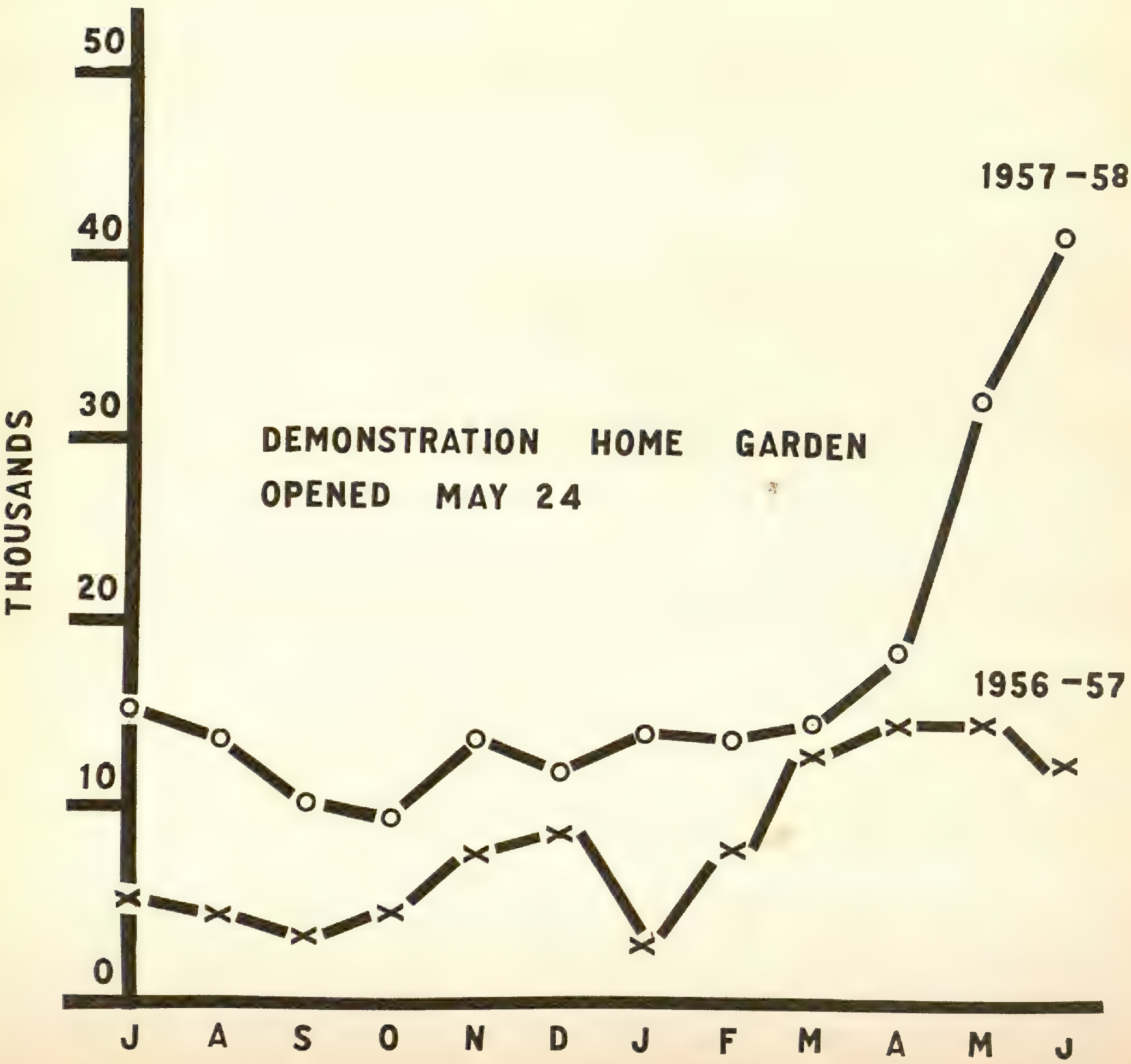
HIGHEST TEMPERATURE	JULY 3	109 deg. F
LOWEST TEMPERATURE	MARCH 3	36 deg. F
TOTAL RAINFALL		30.75 inches
TOTAL EVAPORATION		51.265 inches

Arboretum Visitors

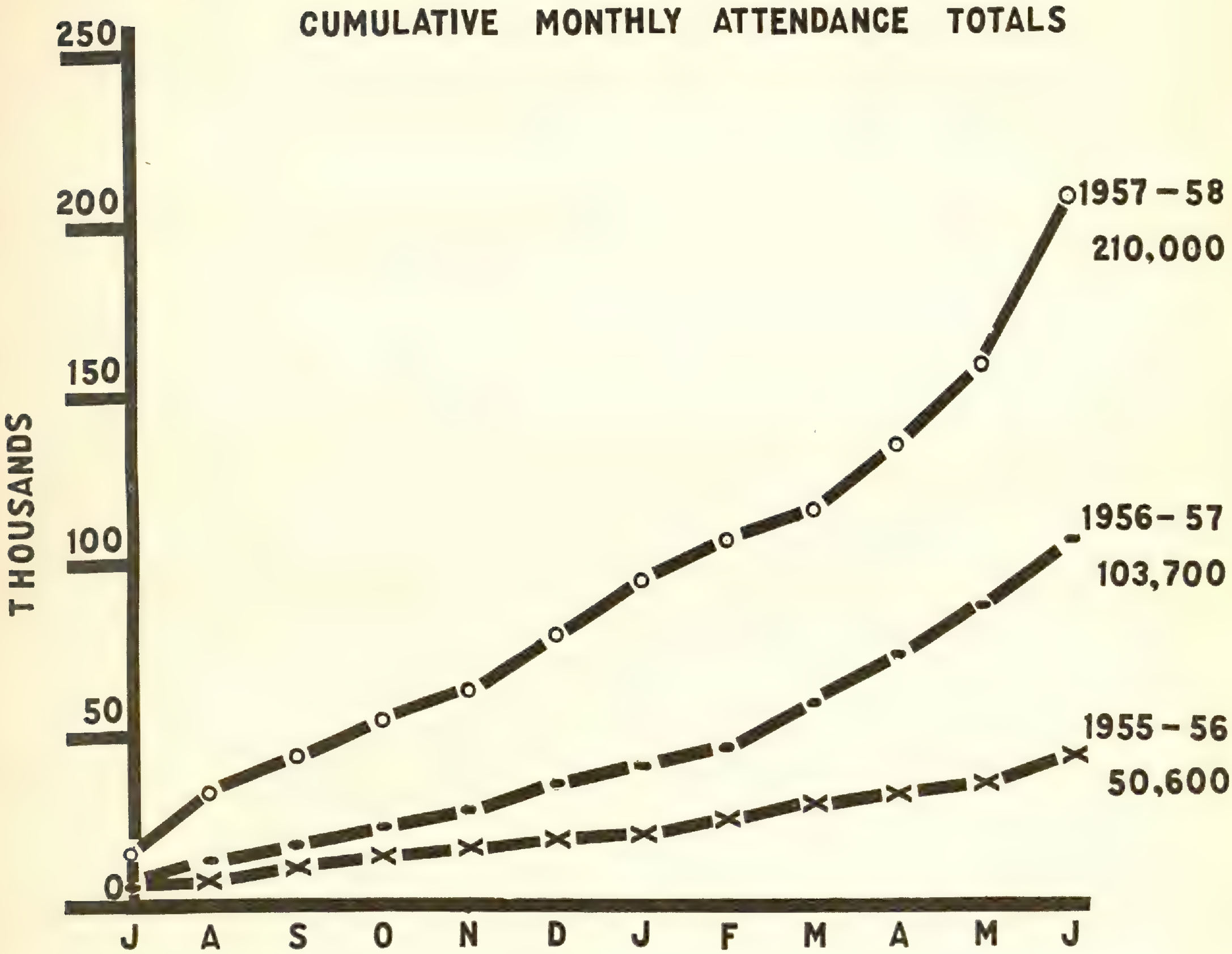
THE ATTENDANCE RECORD this year has been gratifying. The total figure has again doubled over that of the year previous. We are very pleased to find that so many people have come to enjoy the growth of their Arboretum.

Each increase in attendance is a new challenge and responsibility for the staff. The challenge leads us to expand our services in plant introduction, uses of plant materials, horticultural research and horticultural education. The responsibility demands that the quality of these services remain high.

MONTHLY ATTENDANCE TOTALS



THE MONTHLY ATTENDANCE graph reveals that for every month of the year, total attendance was greater than the same period the year before. One item which contributed to the rapid rise in attendance in May and June may have been the opening of the Demonstration Home Gardens. This same factor is expressed in the May to June cumulative total attendance.



School Children

By bus and auto caravan, children of school age visit the Arboretum, a-gain and again. Brownies, Blue Birds, Boy and Girl Scouts, Campfire Girls and similar organizations are consistent Arboretum patrons, in connection with their troop nature study programs.

Out of the numerous letters of appreciation reaching the Arboretum, was one from the San Gabriel Union School Home and School Association, in which Mrs. Josephe E. Maschmeyer, program chairman, said, "There were many expres-sions of appreciation from the boys and girls. They now plan to revisit the Arboretum with their parents. It was really interesting to see the skillful way in which the facts of nature were made fascinating to the boys and girls. They also enjoyed the historical aspects of the Arboretum property as pre-sented by the guides on the jeep-train tour".

A typical child's letter read, "I want to thank you for the trip through the home of Mr. "Lucky" Baldwin. I like the jungle, and I also liked the barn, I had never before in my life seen a peacock. I also learned a lot of things such as about the tree with thorns (in the Biblical Garden)".

The record of scheduled school trips revealed the following facts:

Number of Cities represented	40
Number of Different Classes	150
Number of Children	5,904

The grade level was primarily of the elementary and junior high school.

The Educational Program

For the Adult

THE COURSES REPORTED BELOW ARE THE BASIS OF THE ADULT EDUCATION PROGRAM. OUR DESIRE IS TO DEVELOP A PROGRAM IN WHICH ANY INDIVIDUAL, BY ATTENDING CLASSES FOR ONE OR TWO YEARS, WILL BE ABLE TO COMPLETE A "CURRICULUM" IN HORTICULTURE OF WIDE SCOPE. SUCH A PROGRAM WILL OFFER THE BASIC KNOWLEDGE IN THE FUNDAMENTALS OF HORTICULTURE ADAPTED TO THE USE OF THE HOME-OWNER GARDENER.

ADVANCED COURSES OF THOSE SUBJECTS IN GREATEST DEMAND WILL BE ADDED. ADDITIONAL "BASIC" SUBJECTS WILL BE INCLUDED AS INSTRUCTORS AND TEACHING FACILITIES BECOME AVAILABLE.

SUMMER 1957 - JULY & AUGUST	No. Registered	Duration of Course
Plant Identification	41	2 hrs/wk for 8 wks

FALL 1957 - SEPT. TO JAN.

Tree Identification	20	1 hr/wk for 10 wks
Home Landscaping	25	3 hrs/wk for 17 wks
Beginning Plant Identification	31	2 hrs/wk for 10 wks
Advanced Plant Identification	20	2 hrs/wk for 10 wks
Practical Orchid Culture	47	2 hrs/wk for 10 wks
Botanical Sketching	16	2 hrs/wk for 9 wks
Herb Lectures	30	1½ hrs/wk for 6 wks

SPRING 1958 - FEB. TO APRIL

Advanced Home Landscaping	19	3 hrs/wk for 8 wks
Intro. to Home Landscaping	42	2 hrs/wk for 9 wks
Beginning Plant Identification	20	2 hrs/wk for 9 wks
Beginning Botanical Sketching	14	2 hrs/wk for 9 wks
Advanced Botanical Sketching	9	2 hrs/wk for 9 wks
Practical Orchid Culture	42	2 hrs/wk for 9 wks

SPRING 1958 - APRIL TO JUNE

Advanced Home Landscaping	20	3 hrs/wk for 9 wks
Intro. to Home Landscaping	39	2 hrs/wk for 8 wks
Tree Identification	10	1 hr /wk for 8 wks
Advanced Plant Identification	24	2 hrs/wk for 10 wks
Beginning Botanical Sketching	8	2 hrs/wk for 8 wks
Advanced Botanical Sketching	6	2 hrs/wk for 8 wks
Practical Orchid Culture	46	2 hrs/wk for 8 wks
Herb Lectures	25	1½ hrs/wk for 6 wks
TOTAL REGISTRATION	554	

HOME LANDSCAPE DESIGN
COURSE OUTLINE AND CLASS DATES

September 15: Introduction To Course
Landscape Problems: land problems, structural problems, people problems

September 22: Garden Foundations: grading, drainage, soil conditioning, utilities, irrigation system
Garden Surfacing: hard paving, soft paving, changes in level

September 29: Garden Lighting Demonstration

October 11: (Saturday) Field Trip

October 13: Garden Enclosure: size, weight, material, detail
Garden Shelter: weather control, shelter details, trees, shelter decisions

October 20: Plants and Planting: plant science, plant arrangement, plant selection, unity and variety, maintenance

October 27: Garden Enrichment: plant element, other natural materials, water, rock, color, man-made elements

Landscape Proceedure: the plan, construction and installation, management

November 8: (Saturday) Field Trip

November 10: Case Studies
Sources Of Landscaping Help

For the Children

THE INSTRUCTOR FOR CHILDREN MADE POSSIBLE THE FOLLOWING PROGRAM:

11 COURSES.... SERVING 170 CHILDREN.... WITH A TOTAL OF 700 HOURS OF SPECIALIZED INSTRUCTION.....

BRIEFLY, from Fall through Spring, the Courses were:

JUNIOR BIRD STUDY.....	2 sessions in the fall.
ARBORETUM EXPLORATION.....	at Christmas on the why, what, how.
CONSERVATION.....	a science club on Saturday mornings.
WEATHER.....	2 classes on "make it yourself" stations.
CONSERVATION (again).....	for a general science class.
EXPLORING THE PLANT WORLD....	for the very young.
NATURE STUDY.....	a study of the lagoon and its abounding living things.

MAKING LEAF COLLECTION NOTEBOOKS IS ONE OF THE PROJECTS IN THE CLASS, "EXPLORING NATURE". MRS. GERTRUDE WOODS, ARBORETUM EDUCATION ASSISTANT, WORKS WITH THE CHILDREN FROM THE SECOND THROUGH THE EIGHTH GRADE.

ALONG THE SHORES OF A LAGOON, YOUNG BIOLOGISTS WITH THEIR INSTRUCTOR, SEARCH FOR PLANT LIFE OF AN AQUATIC NATURE.

THE SUMMER PROGRAM FOR CHILDREN BEGAN IN MID JUNE AND TERMINATED THE SECOND WEEK OF AUGUST. PRESENTING A COURSE TO INTRIGUE ORDINARILY BUSY CHILDREN IS A TRICK. HERE WERE OUR ATTEMPTS:

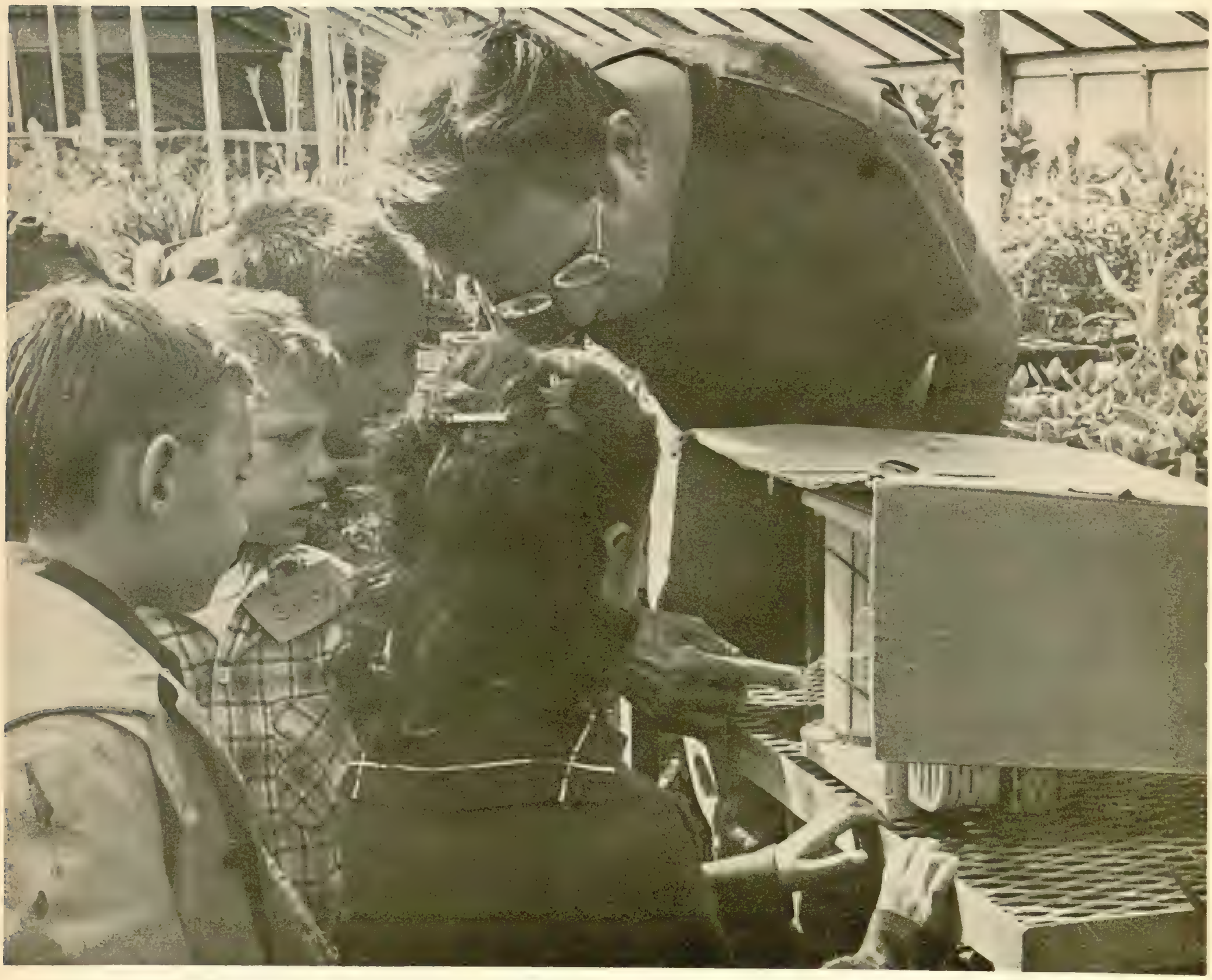
TREE IDENTIFICATION..... FOR 5th & 6th GRADES
PLANTS ARE ALIVE..... FOR 1st, 2nd & 3rd GRADES
LIFE IN THE LAGOON..... FOR 3rd, 4th & 5th GRADES
ART IN NATURE..... FOR 4th, 5th & 6th GRADES
LASCA EXPLORERS..... FOR 7th & 8th GRADES

ATTENDANCE RECORDES SHOWED THAT:

NUMBER REGISTERED..... 134
Child-Hours of Instr.... 909 hours

As an experiment, the Youth Education Program cooperated with one school class in a "Day at the Arboretum". Before coming to the Arboretum, the class discussed what an arboretum was and just what they might expect to learn from a visit to one. In covering the various arboretum activities, the class observed the performance of typical jobs in each different arboretum section--weather, propagation, nursery, field section, etc. In the picture above, they are told and shown how plants are set out in permanent location in the South African Section, by the Arboretum Gardener in charge, Mr. Dan Cassidy.

A summary discussion of what was learned on the trip was conducted by the class when they returned to school. A photographic lesson-note-book was produced, the children preparing the text, the teacher the photographs.



Mr. Quinn Buck, Arboretum Plant Propagator, and "friends" observe temperature/humidity recorder for the man-made weather in the greenhouse.

Research

AVOCADO TESTING

In cooperation with the Variety Committee of the California Avocado Society, the Arboretum planted a collection of young trees to demonstrate the different kinds of avocados suitable for home growers in the Los Angeles area.

The plantings will show home owners the form of the trees as well as productivity and quality of the fruit. Close attention will be given to how well they will grow, with particular reference to frost resistance.

Varieties included: Bacon, Emerald, Carlsbad, Rockwood, Zutano, Irving, Haas, Fuerte, Murrieta, Anaheim, MacArthur, Rincon, Nowels, Ryan, Elsie, Bonita, Corona, Frey, Mesa and Dailey.

This collection of young trees was planted on the south side of Tallac Knoll.

FLOWER CARPET RESEARCH

Living carpets of flowers in vivid colors, which could be snipped by the yard, foot or in designs for floral decorative purposes, are a most likely southern California growing project.

This novel idea was originated by Dr. Frits. W. Went, of the California Institute of Technology, Pasadena. With a grant of $18,000 from Longwood Gardens, Kennett Square, Pa., and the Longwood Foundation, Wilmington, Del., the research was started in January, 1957. Both Dr. Went and Dr. Stewart have been supervising the work.

The first phase of the work was carried out by Mr. Francis Ching. After trying sponge rubber, burlap, cloth and peat moss, Mr. Ching determined that an inch thick flexible plastic foam, 'urethane' was the most suitable for growing plants on a carpeting material.

In starting a flower carpet, the plastic is first cut to the desired size and shape and then placed on an inert sub-medium consisting of fine gravel and vermiculite. Seeding is done directly on the surface of the urethane foam and upon germination the roots penetrate through the pores of the plastic. During this period, the material is kept moist through applications of water. After the first leaves appear, the plants are fed by a specially formulated liquid nutrient at regular intervals. Thus, it can be seen that the method by which these carpets are grown is essentially one of modified hydroponics.

More recently, Mr. Ronald Cross, continuing the research, has been using dwarf annual flowering California desert plants. These plants flower when only an inch or two in height. Possibilities are being studied for using wildflowers of Western Australia and South Africa for carpets. In addition to nutrient feeding techniques and selection of suitable plant material, Mr. Cross has been investigating the use of root spray feeding, the effect of photoperiod on flowering time and the effect of temperature on germination.

GENERAL VIEW OF FLOWER CARPET PROJECT IN GREENHOUSE. BENCHES IN FOREGROUND CONTAIN NEWLY SEEDED AND GERMINATING CARPETS. BACKGROUND BENCHES ARE CARPETS IN MORE ADVANCED STAGES.

FOUR SMALL CARPETS WITH FOUR DIFFERENT TREATMENTS. URETHANE PLASTIC AS BASE IN WHICH PLANTS ARE GROWING LAY ON A MIXTURE OF VERMICULITE AND GRAVEL.

AN AIR POLLUTION TEST PROJECT

Starting with 100 white leghorn chicks, a new air pollution test got underway, sponsored by the State of California Department of Public Health. The Arboretum was one site and a parallel test with genetically similar chicks was established on the same day in a less smog afflicted city some miles east of the Arboretum. This test on 1-day old chicks, for a period of 12 weeks, was a pilot project to point the direction of further smog research.

The project was under the supervision of Dr. Earl J. Catcott, Los Angeles office of the State Health Department. Dr. Wm. D. Urban made the observations of effects on the chicks.

Scientists will study the differences in the health of the birds in the two test locations. Respiratory diseases are a major cause of death in chickens.

GIBBERELLIC ACID

Clonal varieties of Paphiopedilum Maudiae 'magnificum' (Lady slipper orchids) were treated with gibberellic acid, a plant growth regulator hormone. Applications were made to the apex of each plant growth. In some cases, a second flower was produced from a 'leaf bract' which normally produces no flower. Accompanying this response, internodes of the plant elongated. No commercial benefit could be ascribed to the use of gibberellic on orchids at this time; however additional experiments with cyprepediums and cymbidiums are being conducted.

A second experiment was conducted using gibberellic acid as a seed treatment. At a concentration of 250 ppm (parts per million) G.A., an increase in the amount of germination of certain California wildflower seeds was observed. It also was observed that this treatment was more effective on older seeds than on the younger or fresher seeds of the same species. Work continues on these experiments.

Both of these experiments were reported at the American Institute of Biological Science Meetings, August 25-29, 1957, Stanford University.

GROWTH REGULATORS IN ORANGES

A study of growth regulators in Washington navel oranges was carried out during the spring of 1958. Mr. Coenraad Beyers, a visiting scientist from the Transvaal , Africa conducted this work jointly at the Biology Department, California Institute of Technology, Pasadena and at the Arboretum.

On the basis of methanol extractions of developing ovaries and peduncle tissue, growth stimulating compounds (indoleacetic acid and indoleacetonitrile) as well as a growth inhibiting substance were found.

FIRE RESISTANT PLANT MATERIAL

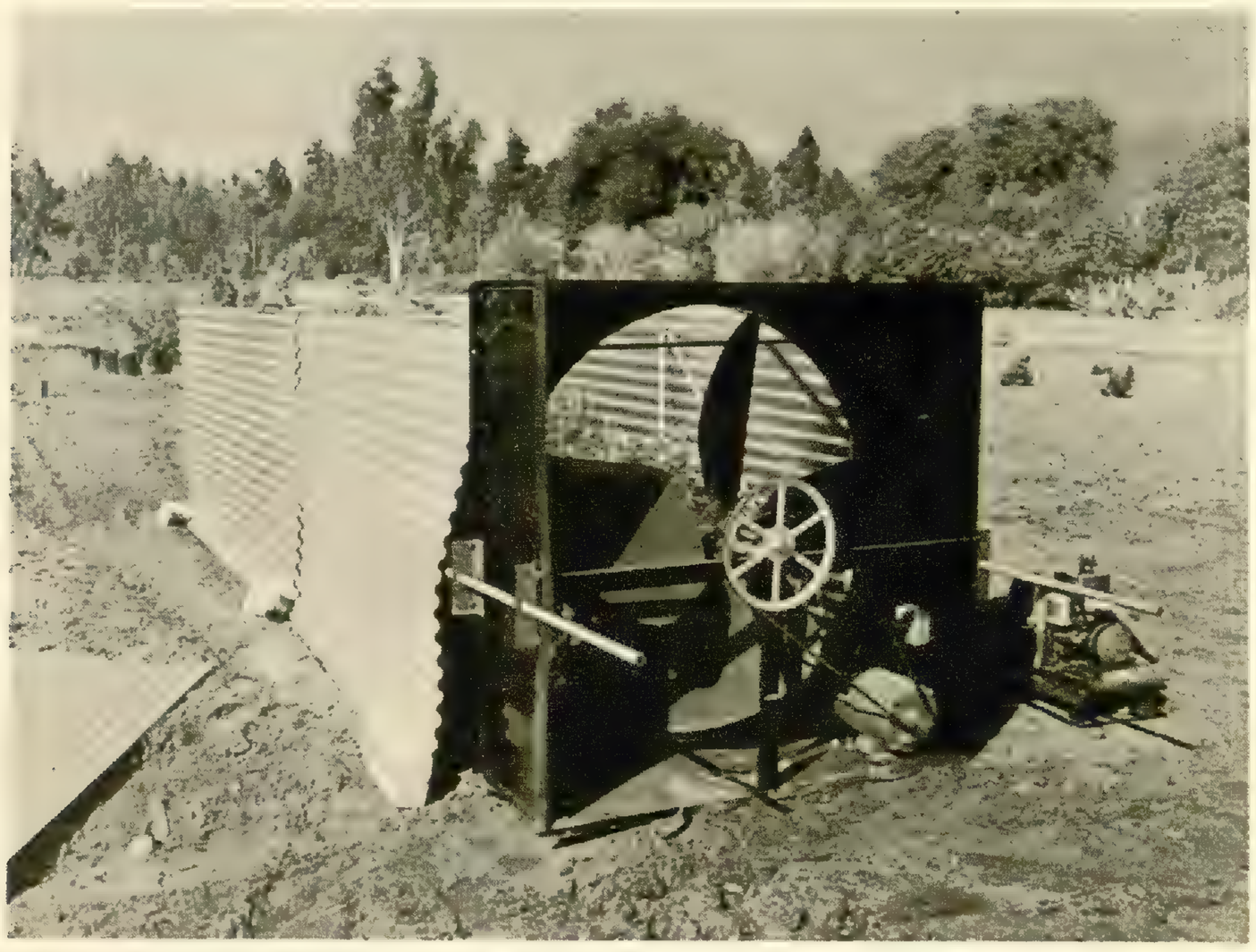
The study continues for additional fire resistant and drouth resistant plants for re-forestration of the southern California mountain slopes.

To facilitate this work, a new muffle furnace was obtained for the leaf burning screening tests (reported 1956-57). More accurate data are now obtained through the heat control device incorporated in the furnace.

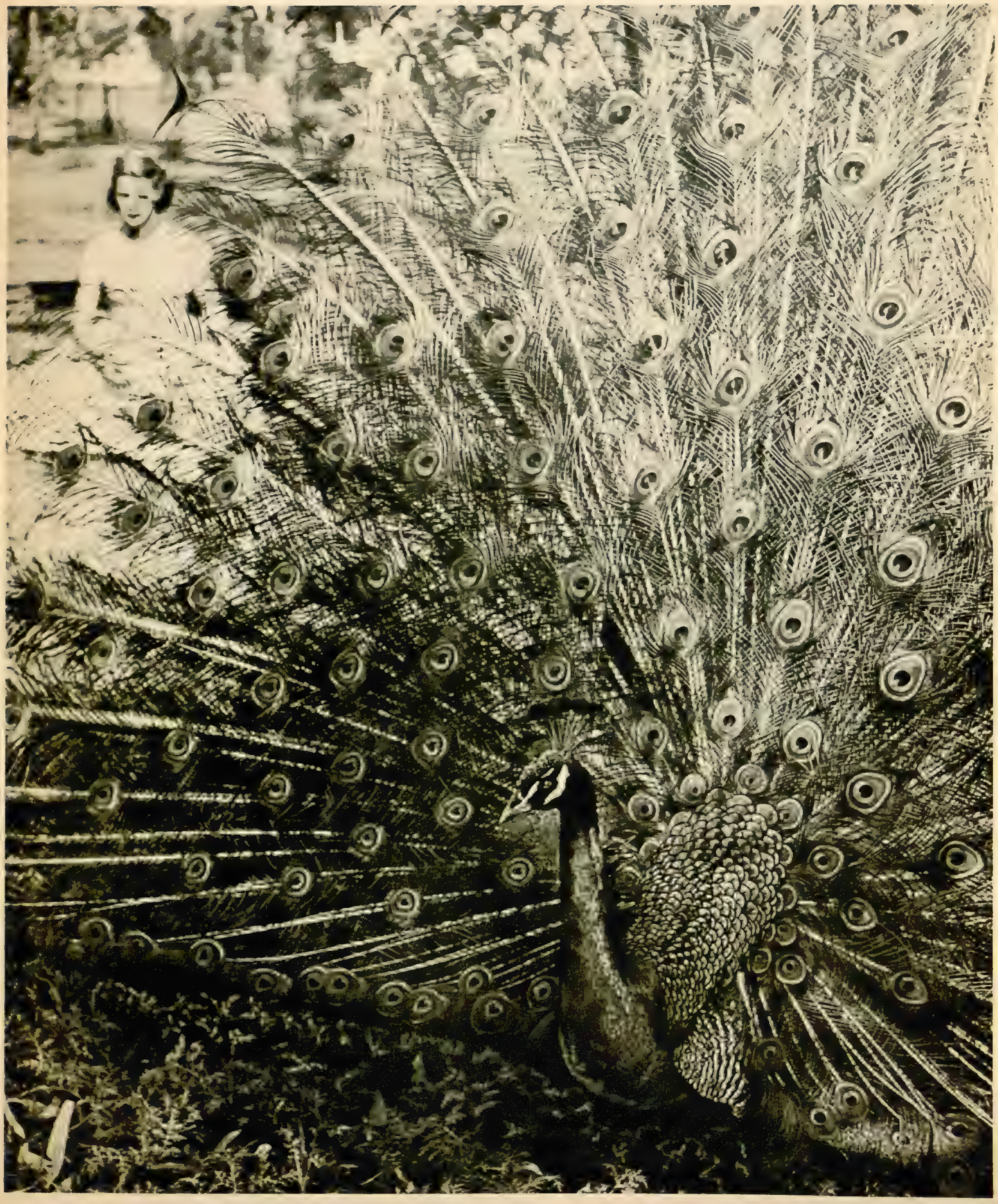
Methods of germinating seed of fire resistant plants using gibberellic acid were initiated to develop more rapid and efficient germination of field sown seed. This will be of much value, where germination depends entirely on winter rains.

Wax milk cartons, containing a small amount of soil and Cistus seedlings were placed in the greenhouse to: 1) determine the break-down pattern of the cartons and 2) growth rate and survival of the Cistus seedlings. If successful, this method will provide an inexpensive and light weight container for mass field plantings of Cistus.

A portable fire tunnel came under construction for use in field testing mass plantings of native and exotic vegetation. A flame will be started at the fan end of the tunnel and the time recorded for the flame to reach the opposite end, 16 feet away. Burning patterns and extent of burning of the plants will also be observed. The results from these tests will throw light on how stands of pure and mixed species might best be grouped to give the maximum fire protection throughout the year.



THE FIRST PORTABLE FIRE TUNNEL SET TO SIMULATE A FIELD TEST. THE FAN IS IN POSITION AT ONE END OF THE TUNNEL. A FRAME OF ALUMINUM TUBING SUPPORTS ROOF AND SIDES OF CORRIGATED ALUMINUM SHEETS.



California Arboretum Foundation Inc.

A NEW MEMBER OF THE BOARD OF TRUSTEES

Former member of the Los Angeles Board of Supervisors, Mr. Roger W. Jessup was appointed as a member of the Board of Trustees of the California Arboretum Foundation, Inc. Mr. Jessup is a member of the Board of Governors of the Los Angeles County Museum and an active member of the Los Angeles Men's Garden Club.

DR. STEWART, ARBORETUM DIRECTOR, CONGRATULATES MR. JESSUP ON HIS APPOINTMENT TO THE BOARD OF TRUSTEES OF THE CALIFORNIA ARBORETUM FOUNDATION, INC. THE BUILDING IN THE BACKGROUND IS THE CARRIAGE HOUSE.

FIRST PROGRESS REPORT -- REID ADOBE ARCHAEOLOGICAL STUDIES

A first progress report was completed this year on the archaeological studies connected with the Hugo Reid Adobe. The work began a year ago, 1956. the report was prepared by Dr. William J. Wallace, Associate Professor of Anthropology at the University of Southern California, Roger J. Desautels and George Kritzman, both graduate students in anthropology at U.S.C.

The report stated: "There is great need for archival and library research on the history of the Reid Adobe and Rancho Santa Anita, as any meaningful discussion of the archaeological findings is dependent upon a thorough knowledge of all documentary sources". It was concluded however, that the Reid Adobe, in its original state had been a simple, solidly built, rectangular structure, more or less identical to the surviving adobe house, built in 1839 by Hugo Reid.

The trowel and brush archaeological "dig" methods used by Dr. Wallace and his staff were the same as those devised for extracting knowledge of man's past

from any prehistoric habitation or settlement. A wide array of artifacts were found, such as relics from an old Indian village on the site, to poker chips, believed to date from the "Lucky" Baldwin era at Rancho Santa Anita.

The restoration of the Hugo Reid is being carried out in cooperation with California State Division of Beaches and Parks and the Historical Committee of the California Arboretum Foundation, Inc.

"LUCKY" BALDWIN CARRIAGE HOUSE RESTORATION

A second project in restoration is that of the Carriage House, built by "Lucky" Baldwin in 1879. The California State Division of Architecture was in charge of the work, a grant of money having been supplied by the State Division of Beaches and Parks. The Historical Committee of the California Arboretum Foundation, Inc., was also a cooperating consultant on this project. The building was re-opened to the public in April.

The interior of the coach barn looks as it did during the roaring 1880's, with handsome walls, paneled with matched three-inch strips of redwood and white pine. Horse stalls which housed some of the finest animals in southern California, are embellished with fancy wrought iron designs. One of Baldwin's tally-ho tvpe stage coaches again will be places on public display. Other items will include a safe used by Baldwin and an old fire fighting cart.

BENEATH A CANOPY OF TALL TREES, "LUCKY'S" CARRIAGE HOUSE, PAINTED SNOW WHITE AND TRIMMED IN VERMILLION, ONCE AGAIN RECALLS THE DAYS OF A REALLY PROSPEROUS LAND OWNER.

MR. ROBERT CASAMAJOR ELECTED AS PRESIDENT OF FOUNDATION

To assume his duties as of July 1, 1958, Mr. Robert Casamajor was elected to succeed Dr. Frits Went as President of the California Arboretum Foundation, Inc. This position involves two obligations: President of both the Arboretum's Board of Governors (Los Angeles County) and Board of Trustees (Arboretum Foundation). Mr. Casamajor has been associated with Dr. Went in plant research work at the Earhart Laboratories, California Institute of Technology. He has been the editor of the Cymbidium Society News for eleven years; a past President of the Pasadena Flower show Association; and past President of the Southern California Horticultural Institute.

DR. FRITS WENT, LEFT, PASSES THE GAVEL OF OFFICE -- DUAL PRESIDENT OF BOARD OF TRUSTEES AND BOARD OF GOVERNORS -- TO MR. ROBERT CASAMAJOR.

JENNIE DEXTER BALDWIN

This handsome portrait of Baldwin's favorite wife was given to the Foundation by the Baldwin family. The portrait measures 5 by 7 feet, is an oil and is on display on the west wall of the parlor of the famous restored "Queen Anne Cottage".

Jennie Dexter Baldwin died before the completion of the "Queen Anne Cottage", which was being constructed by her husband for her to preside over his lavish entertainment of guests.

RARE BOOK VOLUMES GIFTS FROM THE ARBORETUM FOUNDATION

Three separate gifts of books were received for the Library through the California Arboretum Foundation, Incorporated.

The first of these was a rare 5 volume edition of Linnaeus's, System of Nature.

A set of 22 volumes from the works of de Candolle, Prodromus Systematis Naturalis Regni Vegetabilis, was a second gift.

The last gift established a memorial collection for Robert Castelan. Robert was a member of the Children's Theater of the Arboretum Foundation, and los his life as a result of a fall while hiking in the nearby Sierra Madre mountains. The gift consisted of five volumes of "The Community of Living Things".

ARBORETUM FOUNDATION PUBLISHES PETER RIEDEL HORTICULTURAL NOTES

With funds provided by the Harvey Foundation of Santa Barbara, the California Arboretum Foundation has just completed a limited publication of the lifetime horticultural observations of the late Peter Riedel, of Santa Barbara, who died in 1954.

"Plants for Extra-Tropical Regions" is the title of the compilation of notes begun in 1942.

Riedel, born in 1873 in Holland, emigrated to the United States in 1893. Death came to him just before he had reached the letter "S" in his manuscript. The remaining notes, some still filed in a shoebox, were turned over to Dr. Richard M. Straw, Acting Plant Taxonomist at the Arboretum, who completed the book.

In the Introduction by Dr. Straw, it is pointed out that the present publication is still in a preliminary form and should receive further study.

Only 100 copies of the 763 page Riedel book were printed, and they are now being distributed throughout the world to a select list of libraries of universities, botanic gardens and arboreta.

SAN GABRIEL VALLEY LAPIDARY SOCIETY

Petrified wood specimens, gathered from nine western states and believed to date back prior to the ice age, were displayed in the pavilion of the Arboretum.

In all, there are 36 specimens donated by the members of the Society. Types of petrified plant material represented include: palm root, walnut, pine, stalk or leaves of a lily plant, algae, ironwood and thornwood.

This gift to the Foundation will be a part of the permanent display materials for the Arboretum.

ARBORETUM BIRD LIFE

Seven snowy white peafowl and a South American military macaw were given to the Arboretum Foundation.

The peafowl consisted of three cocks and four hens. They add quite a contrast to our large colony of the multi-colored peafowl, left from the days of Baldwin's ownership.

"Cheeko", the blue and yellow macaw, lives in a cage near the entrance gate. When he is in the mood, he is quite talkative but more often, he will entertain the children by barking like a dog.

CHILDREN'S THEATRE

In its second year, the Children's Theatre, a group of young folk, sponsored by the Activities Section of the Arboretum Historical Committee, had reached a capacity membership of 90.

Projects by the children embrace original production in the fields of art, music, dance and drama. A part of the theme of these works include the life and times of early California in the San Gabriel Valley, and specifically in the Arboretum area.

A monthly paper appropriately titled, "Peacock Post", is managed and published entirely by the children.

During the year, the major efforts in preparing and presenting public attended projects were:

July -- An Informal Outdoor Program of Music, Art, and Dance.

Dec. -- A play, "Treasures of Old California".

Dec. -- "Las Posadas", which has become a yearly event.

Apr. -- "The Secret of Ko-Rogi", a Japanese inspired original play.

THE JEEP TRAINS

For the convience of all, the Foundation continues to sponsor "Jeep Train" transportation around the grounds. There is no fee for the ride, covering some 120 acres of plant and historical displays. Maintenance is partially covered by voluntary contribution of the riders.

Special Events

THE MEMBERS OF THE LOS ANGELES COUNTY BOARD OF SUPERVISORS POSED FOR THEIR PICTURE ON THE PORCH OF THE "QUEEN ANNE COTTAGE". LEFT TO RIGHT: BURTON W. CHASE, THE LATE HERBERT C. LEGG, J. ANSON FORD, KENNETH HAHN AND WARREN M. DORN.

THE CALIFORNIA STATE Park commission, the Los Angeles County Board of Supervisors and the Board of Governors of the County Department of Arboreta and Botanic Gardens held their first joint session at the Arboretum on July 26, 1957.

Following an outdoor luncheon, the official party was escorted through the historic Hugo Reid Adobe, built originally in 1839, and now being restored with State funds. The restoration will also include the landscaping and plant life of the 1840 period in a five acre area surrounding the adobe.

The two buildings of the Baldwin era were also visited; the "Queen Anne Cottage", E. J. "Lucky" Baldwin's home restored by the Historical Committee of the Arboretum Foundation, and "Lucky's" Carriage House. The restoration of this building is being accomplished through State funds.

ON MARCH 7TH, THE ARBORETUM HELD its Arbor Day Program, honoring the birthday of Luther Burbank.

Two hundred members of the Arcadia Council of Camp Fire Girls in ceremonial robes conducted the third annual Arbor Day Program. Representative of 14 other national youth groups of the San Gabriel Valley area were invited to attend and participate in the program.

A triad of trees, Koelreuteria bipaniculata, symbolical of the three-point

Camp Fire program were planted by the girls. The money to purchase the trees was earned and collected by the Camp Fire Girls. Trees for planting at their respective unit headquarters were given to each of the other participating youth organizations.

Total attendance, which included parents, friends and the general public was estimated to be 500.

WITHIN A HUGE CIRCLE, THE THIRD ANNUAL ARBOR DAY PROGRAM WAS CALLED INTO ACTION BY THE SENIOR MEMBERS OF THE CAMP FIRE GIRLS OF THE SAN GABRIEL VALLEY COUNCIL.

Financial Report

FINANCIAL REPORT 1957 - 1958

TOTALS

	Appropriation	Expenditure	Balance
Salaries and Wages	$288,258	$289,796.90	$-1,538.90
Maintenance & Operation	37,755	38,347.83	-592.83
Capital Outlay	14,957	15,061.82	-104.82
TOTAL	$340.970	$343,206.55	$-2,236.55

Salaries and Wages

Appropriation	Expenditure	Balance
$288,258.00	$289,796.90	$-1,538.90

Maintenance and Operation

Account	Appropriation	Expenditure	Balance
Mechanical Service	$ 4,950.00	$ 9,017.44	$-4,067.44
Stores Service	22,180.00	22,708.69	-528.69
All Other Service	10,625,00	6,621.70	4,403.30
	$37,755.00	$38,347.83	$- 592.83

Capital Outlay

Appropriation	Expenditure	Balance
$14,957	$15,061.82	$- 104.82

An annual report can only highlight a year's work. The compilation of even this small portion is the result of many helping hands. A sincere thanks is extended to all the staff for their part in the preparation of this report.

ILLUSTRATION CREDIT

CONNIE AMSDEN	Page 38
WILLIAM APLINE	Page 8
MARGURITE BUTTNER	Page 45
RON CROSS & FRANCIS CHING	Page 42
DENIS KUCERA	Pages 6,9,10,11,12, 13,14,18,19,20, 21,23,24,25,35, 36,37,42,47,48, 56,58.
	Front & Back Cover
A. ELLIS SMITH	Pages 50,55

GERRY V. PATTEN Graphs, Section Captions, Photo-retouching

EDITOR: Louis B. Martin

IN A CLEARING LIKE THE ONE ABOVE, CHILDREN LEARN ABOUT THE WONDERS OF NATURE. AS THE COMING GENERATION, THEY WILL USE, UNDERSTAND AND ENJOY NATURE THROUGHOUT THEIR LIFE TIME. WHEN IS A BETTER TIME TO CAPTURE THE ENERGY AND NATURAL CURIOSITY OF A CHILD, IN HOPES THAT HE OR SHE MIGHT GO ON TO BECOME A BOTANIST, BIOLOGIST OR A HORTICULTURIST!

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